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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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John M. Fenderson

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EXAMINER

ARNOLD, ERNST V

ART UNIT

PAPER NUMBER

1616

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/990,570	<b>Applicant(s)</b> FENDERSON ET AL.	
	<b>Examiner</b> ERNST V. ARNOLD	<b>Art Unit</b> 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 08/236732.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

Claims 1-24 are pending in the application.

### **Withdrawn rejections:**

Applicant's amendments and arguments filed 12/8/08 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below is herein withdrawn. Applicant filed an ADS with the foreign priority claimed. Applicant also filed terminal disclaimers over US 5716901 and 5900388 which were approved on 2/9/09. Those rejections are withdrawn by the Examiner.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-24 remain/are rejected under 35 U.S.C. 103(a) as being unpatentable over Harr et al. (Weeds 1991) in view of Lee (US 5,336,662) and Markley et al. (US 4,824,475).

Applicant claims herbicidal compositions of dimethenamid and a second herbicide selected from the group consisting of triketone or dione and triazine herbicides. Applicant claims methods of controlling undesired plant growth.

### **Determination of the scope and content of the prior art**

#### **(MPEP 2141.01)**

Harr et al. teach that SAN 582 H (dimethenamid) is a new pre-emergence herbicide that offers reliable weed control under a wide variety of climates and soil types and is selective in corn and soybeans (Abstract and Introduction). Harr et al. teach that SAN 582 H can be used with other standard herbicides to achieve broader spectrum of weed control (Abstract and page 92). Harr et al. teach pre-emergence to very early post emergence applications (page 89). Harr et al. teach methods of controlling weeds by applying SAN 582 H to various weeds (0.75-1.5 kg AI/ha) and when used in mixtures the rates of application will have to be adapted (pages 91-92, text and Tables 2 and 3).

Lee teaches 2,6,6-trimethyl-4-(4-chloro-nitrobenzoyl)-2H-1,2-oxazine-3,5-(4H,6H)-dione as a particularly preferred herbicide (column 3, lines 49-51 and see Table A and claim 1) which can be applied either pre- or post-emergent (column 7, lines 38-

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41) and where the optimum usage is readily determined by one of ordinary skill in the art (column 7, lines 55-57).

Markley et al. teach triazines such as atrazine as herbicides (Abstract and claims 1, 11 and 12). Markley et al. teach that triazine alone or in combination can be applied at planting (pre-emergent) or very early post-emergently (Abstract and claims 29 and 30). Markley et al. teach methods of controlling weeds, in the presence of corn, by applying an herbicidally effective amount of the composition (claims 21-30).

#### **Ascertainment of the difference between the prior art and the claims**

##### **(MPEP 2141.02)**

1. The difference between the instant application and Harr et al. is that Harr et al. do not expressly teach a composition or method combining dimethenamid with a triketone or diketone (at a weight ratio of between 1:2 and 1:10 relative to dimethenamid content) and/or triazine (at a weight ratio of 3:1 or 1:3 relative to dimethenamid content). This deficiency in Harr et al. is cured by the teachings of Lee and Markley et al.

#### **Finding of prima facie obviousness**

##### **Rational and Motivation (MPEP 2142-2143)**

1. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to make a composition or perform the method of Harr et al. by combining dimethenamid with a triketone or diketone (at a weight ratio of between 1:2 and 1:10 relative to dimethenamid content) and/or triazine (at a weight ratio of 3:1 or

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1:3 relative to dimethenamid content), as suggested by Lee and Markley et al., and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Harr et al. suggest adding other standard herbicides to achieve a broader spectrum of weed control and adjusting the amount of ingredients. Lee and Markley et al. teach the instantly claimed herbicides as known in the art. It is the Examiner's position that the amount of a specific ingredient in a composition is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient needed to achieve the desired results such as ratios of 1:1 or 1:10 of actives. Thus, absent some demonstration of unexpected results from the claimed parameters, the optimization of ingredient amounts would have been obvious at the time of applicant's invention. *The predictable result is formulation of yet another herbicide composition that works to control undesired plant growth.*

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of

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ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

**Response to arguments:**

Applicant has filed a Declaration under 37 CFR 1.132. (Note that the Declaration itself does not state this but rather it is stated in the Remarks on page 2.) The Declaration shows experimental data of the herbicidal activity of the combination of dimethenamid and the triketone mesotrione against a variety of plants and Applicant alleges synergistic activity. The Declaration is not sufficient to overcome the rejection of claims 1-24 under 35 U.S.C. 103(a) as being unpatentable over Harr et al. (Weeds 1991) in view of Lee (US 5,336,662) and Markley et al. (US 4,824,475) for the following reasons. First of all the showing is not commensurate in scope with the claims. No diketones or triazenes have been shown to have synergistic activity. Secondly, as can be seen from Applicant's data reproduced below, the combination of dimethenamid and mesotrione might be synergistic against CASTO but it is merely a difference in degree and not in kind against CHEAL. So, clearly the specific combination of dimethenamid and mesotrione in the amounts tested is not synergistic against all plants and the result is an expected result.

CASTO	250	20	16	20	250+16	50	36.0	Y
CASTO	250	20	31	20	250+31	70	36.0	Y
CHEAL	250	80	16	95	250+16	100	99.0	Y
CHEAL	250	80	31	95	250+31	100	99.0	Y
EDMUN	350	80	125	95	350+125	80	94.0	Y

Thus, there is no showing that the objective evidence of nonobviousness is commensurate in scope with the claims. See MPEP § 716.

***Conclusion***

No claims are allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernst V. Arnold whose telephone number is 571-272-8509. The examiner can normally be reached on M-F (6:15 am-3:45 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Ernst V Arnold/  
Examiner, Art Unit 1616